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Cys Pro Gln Cys Lys Thr Arg Tyr Lys Arg Leu Lys Gly Cys Gln Arg
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Lys Thr Asp Trp Gly Lys Glu Ile Gly Trp Ile Tyr Gly Ser Val Thr
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 Glu Asp Ile Leu Thr Gly Phe Lys Met His Cys His Gly Trp Arg Ser
 785 790 795 800
 Ile Tyr Cys Ile Pro Lys Arg Val Ala Phe Lys Gly Ser Ala Pro Leu
 805 810 815
 Asn Leu Ser Asp Arg Leu His Gln Val Leu Arg Trp Ala Leu Gly Ser
 820 825 830
 Ile Glu Ile Phe Phe Ser Asn His Cys Pro Leu Trp Tyr Gly Tyr Gly
 835 840 845
 Gly Gly Leu Lys Phe Leu Glu Arg Phe Ser Tyr Ile Asn Ser Ile Val
 850 855 860
 Tyr Pro Trp Thr Ser Ile Pro Leu Leu Ala Tyr Cys Thr Leu Pro Ala
 865 870 875 880
 Ile Cys Leu Leu Thr Gly Lys Phe Ile Thr Pro Glu Leu Asn Asn Val
 885 890 895
 Ala Ser Leu Trp Phe Met Ser Leu Phe Ile Cys Ile Phe Ala Thr Ser
 900 905 910
 Ile Leu Glu Met Arg Trp Ser Gly Val Gly Ile Asp Asp Trp Trp Arg
 915 920 925
 Asn Glu Gln Phe Trp Val Ile Gly Gly Val Ser Ser His Leu Phe Ala
 930 935 940
 Val Phe Gln Gly Leu Leu Lys Val Ile Ala Gly Val Asp Thr Ser Phe
 945 950 955 960
 Thr Val Thr Ser Lys Gly Gly Asp Asp Glu Glu Phe Ser Glu Leu Tyr
 965 970 975
 Thr Phe Lys Trp Thr Thr Leu Leu Ile Pro Pro Thr Thr Leu Leu Leu
 980 985 990
 Leu Asn Phe Ile Gly Val Val Ala Gly Val Ser Asn Ala Ile Asn Asn
 995 1000 1005
 Gly Tyr Glu Ser Trp Gly Pro Leu Phe Gly Lys Leu Phe Phe Ala Phe
 1010 1015 1020
 Trp Val Ile Val His Leu Tyr Pro Phe Leu Lys Gly Leu Val Gly Arg
 1025 1030 1035 1040
 Gln Asn Arg Thr Pro Thr Ile Val Ile Val Trp Ser Ile Leu Leu Ala
 1045 1050 1055
 Ser Ile Phe Ser Leu Leu Trp Val Arg Ile Asp Pro Phe Leu Ala Lys
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 <212> DNA
 <213> Oryza sativa

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 <211> 341
 <212> PRT
 <213> Oryza sativa

<400> 12
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 35 40 45
 Ala Gly Ala Glu Val Thr Arg Asn Ala Val Val Glu Ala Ala Arg Phe
 50 55 60
 Ala Ala Leu Trp Val Ser Phe Cys Arg Lys His Gly Val Glu Pro Arg
 65 70 75 80
 Asn Leu Glu Ala Tyr Phe Asn Ala Gly Glu Gly Gly Gly Lys Ala
 85 90 95
 Lys Val Val Ala Arg Gly Ser Tyr Arg Gly Met Ala Trp Pro Glu Leu
 100 105 110
 Val Arg Asp Arg Arg Arg Val Arg Arg Glu Tyr Glu Glu Met Arg Leu
 115 120 125
 Arg Ile Asp Ala Leu Gln Ala Ala Asp Ala Arg Arg Arg Arg Arg Gly
 130 135 140

Ala Ala Asp Asp His Ala Gly Val Val Gln Val Leu Ile Asp Phe Ala
 145 150 155 160

Gly Ser Val Pro Gln Leu Gly Val Ala Asn Gly Ser Lys Leu Ile Asp
 165 170 175

Val Ala Ser Val Asp Val Cys Leu Pro Ala Leu Val Tyr Val Cys Arg
 180 185 190

Glu Lys Arg Arg Gly His Ala His His Arg Lys Ala Gly Ala Met Asn
 195 200 205

Ala Pro Phe Ile Leu Asp Leu Asp Cys Asp Tyr Tyr Val Asn Asn Ser
 210 215 220

Gln Ala Leu Arg Ala Gly Ile Cys Phe Met Ile Glu Arg Gly Gly Gly
 225 230 235 240

Gly Ala Ala Glu Asp Ala Gly Ala Val Ala Phe Val Gln Phe Pro Gln
 245 250 255

Arg Val Asp Gly Val Asp Pro Gly Asp Arg Tyr Ala Asn His Asn Arg
 260 265 270

Val Leu Phe Asp Cys Thr Glu Leu Gly Leu Asp Gly Leu Gln Gly Pro
 275 280 285

Ile Tyr Val Gly Thr Gly Cys Leu Phe Arg Arg Val Ala Leu Tyr Ser
 290 295 300

Val Asp Leu Pro Arg Trp Arg Pro Arg Arg Ser Leu Gly Cys Arg Leu
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Leu Ser Gly Pro Arg
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<210> 13
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 <212> PRT
 <213> Glycine max

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 35 40 45
 Asp Gly Asp Leu Phe Val Ala Cys Asn Glu Cys Gly Phe Pro Val Cys
 50 55 60
 Arg Pro Cys Tyr Glu Tyr Glu Arg Arg Glu Gly Ser His Leu Cys Pro
 65 70 75 80
 Gln Cys Lys Thr Arg Tyr Lys Arg Leu Lys Gly Ser Pro Arg Val Glu
 85 90 95
 Gly Asp Asp Asp Glu Glu Asp Val Asp Asp Ile Glu His Glu Phe Asn
 100 105 110
 Ile Asp Glu Gln Lys Asn Lys His Gly Gln Val Ala Glu Ala Met Leu
 115 120 125
 His Gly Arg Met Ser Tyr Gly Arg Gly Pro Glu Asp Asp Asp Asn Ser
 130 135 140
 Gln Phe Pro Thr Pro Val Ile Ala Gly Gly Arg Ser Arg Pro Val Ser
 145 150 155 160
 Gly Glu Phe Pro Ile Ser Ser Asn Ala Tyr Gly Asp Gln Met Leu Ser
 165 170 175
 Ser Ser Leu His Lys Arg Val His Pro Tyr Pro Val Ser Glu Pro Gly
 180 185 190
 Ser Ala Arg Trp Asp Glu Lys Lys Xaa Asp Gly Trp Lys Asp Arg Met
 195 200 205
 Asp Asp Trp Lys Leu Gln Gln Gly Asn Leu Gly Pro Glu Pro Asp Glu
 210 215 220
 Asp Pro Asp Ala Ala Met Leu Asp Glu Ala Arg Gln Pro Leu Ser Arg
 225 230 235 240
 Lys Val Pro Ile Ala Ser Ser Lys Ile Asn Pro Tyr Arg Met Val Ile
 245 250 255
 Val Ala Arg Leu Val Ile Leu Ala Phe Phe Leu Arg Tyr Arg Leu Met
 260 265 270
 Asn Pro Val His Asp Ala Leu Gly Leu Trp Leu Thr Ser Ile Ile Cys
 275 280 285
 Glu Ile Trp Phe Ala Phe Ser Trp Ile Leu Asp Gln Phe Pro Lys Trp
 290 295 300
 Phe Pro Ile Asp Arg Glu Thr Tyr Leu Asp Arg Leu Ser Ile Arg Tyr
 305 310 315 320
 Glu Arg Glu Gly Glu Pro Asn Met Leu Ala Pro Val Asp Val Phe Val
 325 330 335
 Ser Thr Val Asp Pro Met Lys Glu Pro Pro Leu Val Thr Ala Asn Thr
 340 345 350

Val Leu Ser Ile Leu Ala Met Asp Tyr Pro Val Asp Lys Ile Ser Cys
 355 360 365
 Tyr Ile Ser Asp Asp Gly Ala Ser Met Cys Thr Phe Glu Ser Leu Ser
 370 375 380
 Glu Thr Ala Glu Phe Ala Arg Lys Trp Val Pro Phe Cys Lys Lys Phe
 385 390 395 400
 Ser Ile Glu Pro Arg Ala Pro Glu Met Tyr Phe Ser Glu Lys Ile Asp
 405 410 415
 Tyr Leu Lys Asp Lys Val Gln Pro Thr Phe Val Lys Glu Arg Arg Ala
 420 425 430
 Met Lys Arg Glu Tyr Glu Glu Phe Lys Val Arg Ile Asn Ala Leu Val
 435 440 445
 Ala Lys Ala Gln Lys Val Pro Gln Gly Gly Trp Ile Met Gln Asp Gly
 450 455 460
 Thr Pro Trp Pro Gly Asn Asn Thr Lys Asp His Pro Gly Met Ile Gln
 465 470 475 480
 Val Phe Leu Gly Ser Ser Gly Gly Leu Asp Thr Glu Gly Asn Gln Leu
 485 490 495
 Pro Arg Leu Val Tyr Val Ser Arg Glu Lys Arg Pro Gly Phe Gln His
 500 505 510
 His Lys Lys Ala Gly Ala Met Asn Ala Leu Val Arg Val Ser Ala Val
 515 520 525
 Leu Thr Asn Ala Pro Phe Met Leu Asn Leu Asp Cys Asp His Tyr Val
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 Gln Thr Gly Lys Lys Val Cys Tyr Val Gln Phe Pro Gln Arg Phe Asp
 565 570 575
 Gly Ile Asp Thr His Asp Arg Tyr Ala Asn Arg Asn Thr Val Phe Phe
 580 585 590
 Asp Ile Asn Met Lys Gly Leu Asp Gly Ile Gln Gly Pro Val Tyr Val
 595 600 605
 Gly Thr Gly Cys Val Phe Arg Arg Gln Ala Leu Tyr Gly Tyr Asn Pro
 610 615 620
 Pro Lys Gly Pro Lys Arg Pro Lys Met Val Ser Cys Asp Cys Cys Pro
 625 630 635 640
 Cys Phe Gly Ser Arg Lys Lys Tyr Lys Glu Lys Asn Asp Ala Asn Gly
 645 650 655
 Glu Ala Ala Ser Leu Lys Gly Met Asp Asp Asp Lys Glu Val Leu Met
 660 665 670

Ser Gln Met Asn Phe Glu Lys Lys Phe Gly Gln Ser Ser Ile Phe Val
675 680

Thr Ser Thr Leu Met Glu Glu Gly Gly Val Pro Pro Ser Ser Ser Pro
690 695 700

Ala Ala Leu Leu Lys Glu Ala Ile His Val Ile Ser Cys Gly Tyr Glu
705 710 715 720

Asp Lys Thr Glu Trp Gly Leu Glu Leu Gly Trp Ile Tyr Gly Ser Ile
725 730 735

Thr Glu Asp Ile Leu Thr Gly Phe Lys Met His Cys Arg Gly Trp Arg
740 745 750

Ser Ile Tyr Cys Met Pro Lys Arg Ala Ala Phe Lys Gly Thr Ala Pro
755 760 765

Ile Asn Leu Ser Asp Arg Leu Asn Gln Val Leu Arg Trp Ala Leu Gly
770 775 780

Ser Ile Glu Ile Phe Phe Ser His His Cys Pro Leu Trp Tyr Gly Phe
785 790 795 800

Lys Glu Lys Lys Leu Lys Trp Leu Glu Arg Phe Ala Tyr Ala Asn Thr
805 810 815

Thr Val Tyr Pro Phe Thr Ser Ile Pro Leu Val Ala Tyr Cys Ile Leu
820 825 830

Pro Ala Val Cys Leu Leu Thr Asp Lys Phe Ile Met Pro Pro Ile Ser
835 840 845

Thr Phe Ala Gly Leu Tyr Phe Val Ala Leu Phe Ser Ser Ile Ile Ala
850 855 860

Thr Gly Ile Leu Glu Leu Lys Trp Ser Gly Val Ser Ile Glu Glu Trp
865 870 875 880

Trp Arg Asn Glu Gln Phe Trp Val Ile Gly Gly Val Ser Ala His Leu
885 890 895

Phe Ala Val Ile Gln Gly Leu Leu Lys Val Leu Ala Gly Ile Asp Thr
900 905 910

Asn Phe Thr Val Thr Ser Lys Ala Thr Asp Asp Glu Glu Phe Gly Glu
915 920 925

Leu Tyr Thr Phe Lys Trp Thr Thr Leu Leu Ile Pro Pro Thr Thr Ile
930 935 940

Leu Ile Ile Asn Ile Val Gly Val Val Ala Gly Ile Ser Asp Ala Ile
945 950 955 960

Asn Asn Gly Tyr Gln Ser Trp Gly Pro Leu Phe Gly Lys Leu Phe Phe
965 970 975

Ser Phe Trp Val Ile Val His Leu Tyr Pro Phe Leu Lys Gly Leu Met
980 985 990

Gly Arg Gln Asn Arg Thr Pro Thr Ile Val Val Ile Trp Ser Val Leu
995 1000 1005

Leu Ala Ser Ile Phe Ser Leu Leu Trp Val Arg Ile Asp Pro Phe Val
1010 1015 1020

Leu Lys Thr Lys Gly Pro Asp Thr Lys Leu Cys Gly Ile Asn Cys
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<212> DNA
<213> Glycine max

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<211> 610
<212> PRT
<213> Glycine max

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 Val Phe Leu Gly His Ser Gly Gly Leu Asp Thr Asp Gly Asn Glu Leu
 35 40 45
 Pro Arg Leu Val Tyr Val Ser Arg Glu Lys Arg Pro Gly Phe Gln His
 50 55 60
 His Lys Lys Ala Gly Ala Met Asn Ala Leu Ile Arg Val Ser Ala Val
 65 70 75 80
 Leu Thr Asn Gly Ala Tyr Leu Leu Asn Val Asp Cys Asp His Tyr Phe
 85 90 95
 Asn Asn Ser Lys Ala Leu Lys Glu Ala Met Cys Phe Met Met Asp Pro
 100 105 110
 Val Leu Gly Lys Lys Thr Cys Tyr Val Gln Phe Pro Gln Arg Phe Asp
 115 120 125
 Gly Ile Asp Leu His Asp Arg Tyr Ala Asn Arg Asn Ile Val Phe Phe
 130 135 140
 Asp Ile Asn Met Lys Gly Gln Asp Gly Val Gln Gly Pro Val Tyr Val
 145 150 155 160
 Gly Thr Gly Cys Cys Phe Asn Arg Gln Ala Leu Tyr Gly Tyr Asp Pro
 165 170 175
 Val Leu Thr Glu Glu Asp Leu Glu Pro Asn Ile Ile Val Lys Ser Cys
 180 185 190
 Cys Gly Ser Arg Lys Lys Gly Lys Gly Gly Asn Lys Lys Tyr Ser Asp
 195 200 205
 Lys Lys Lys Ala Met Gly Arg Thr Glu Ser Thr Val Pro Ile Phe Asn
 210 215 220
 Met Glu Asp Ile Glu Glu Gly Val Glu Gly Tyr Asp Asp Glu Arg Thr
 225 230 235 240
 Leu Leu Met Ser Gln Lys Ser Leu Glu Lys Arg Phe Gly Gln Ser Pro
 245 250 255
 Val Phe Ile Ala Ala Thr Phe Met Glu Gln Gly Gly Ile Pro Pro Ser
 260 265 270
 Thr Asn Pro Ala Thr Leu Leu Lys Glu Ala Ile His Val Ile Ser Cys
 275 280 285
 Gly Tyr Glu Asp Lys Thr Glu Trp Gly Lys Glu Ile Gly Trp Ile Tyr
 290 295 300
 Gly Ser Val Thr Glu Asp Ile Leu Thr Gly Phe Lys Met His Ala Arg
 305 310 315 320

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Gly Trp Ile Ser Ile Tyr Cys Met Pro Pro Arg Pro Ala Phe Lys Gly
325 330 335

Ser Ala Pro Ile Asn Leu Ser Asp Arg Leu Asn Gln Val Leu Arg Trp
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Ala Leu Gly Ser Ile Glu Ile Phe Leu Ser Arg His Cys Pro Leu Trp
355 360 365

Tyr Gly Tyr Asn Gly Lys Leu Lys Pro Leu Met Arg Leu Ala Tyr Ile
370 375 380

Asn Thr Ile Val Tyr Pro Phe Thr Ser Ile Pro Leu Ile Ala Tyr Cys
385 390 395 400

Thr Leu Pro Ala Phe Cys Leu Leu Thr Asn Lys Phe Ile Ile Pro Glu
405 410 415

Ile Ser Asn Phe Ala Ser Met Trp Phe Ile Leu Leu Phe Val Ser Ile
420 425 430

Phe Thr Thr Ser Ile Leu Glu Leu Arg Trp Ser Gly Val Ser Ile Glu
435 440 445

Asp Trp Trp Arg Asn Glu Gln Phe Trp Val Ile Gly Gly Thr Ser Ala
450 455 460

His Leu Phe Ala Val Phe Gln Gly Leu Leu Lys Val Leu Ala Gly Ile
465 470 475 480

Asp Thr Asn Phe Thr Val Thr Ser Lys Ala Ser Asp Glu Asp Gly Asp
485 490 495

Phe Ala Glu Leu Tyr Val Phe Lys Trp Thr Ser Leu Leu Ile Pro Pro
500 505 510

Thr Thr Val Leu Ile Val Asn Leu Val Gly Ile Val Ala Gly Val Ser
515 520 525

Tyr Ala Ile Asn Ser Gly Tyr Gln Ser Trp Gly Pro Leu Phe Gly Lys
530 535 540

Leu Phe Phe Ala Ile Trp Val Ile Ala His Leu Tyr Pro Phe Leu Lys
545 550 555 560

Gly Leu Leu Gly Arg Gln Asn Arg Thr Pro Thr Ile Val Ile Val Trp
565 570 575

Ser Val Leu Leu Ala Ser Ile Phe Ser Leu Leu Trp Val Arg Ile Asp
580 585 590

Pro Phe Thr Ser Asp Ser Asn Lys Leu Thr Asn Gly Gln Cys Gly Ile
595 600 605

Asn Cys
610

<210> 17
<211> 2890

<212> DNA
<213> Glycine max

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<400> 17
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gtccagtgta gaactctttg tcaagtactgt tgatccccatg aaggaaacctc cactgattacc 240
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tgtctcagat gatggtgtcg ttttgacttac ttttgaagca ctgtctgaga catctgaatt 360
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gtacttttgtt cagaagatgg actatctgaa aaataaagta caccocagcat ttgtcaggga 480
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<211> 793
<212> PRT
<213> Glycine max

<400> 18
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Pro Lys Trp Tyr Pro Ile Gln Arg Glu Thr Tyr Leu Asp Arg Leu Ser
35 40 45
Leu Arg Tyr Glu Lys Glu Gly Lys Pro Ser Glu Leu Ser Ser Val Asp
50 55 60
Val Phe Val Ser Thr Val Asp Pro Met Lys Glu Pro Pro Leu Ile Thr
65 70 75 80
Ala Asn Thr Val Leu Ser Ile Leu Ala Val Asp Tyr Pro Val Asp Lys
85 90 95
Val Ala Cys Tyr Val Ser Asp Asp Gly Ala Ala Met Leu Thr Phe Glu
100 105 110
Ala Leu Ser Glu Thr Ser Glu Phe Ala Arg Arg Trp Val Pro Phe Cys
115 120 125
Lys Lys Tyr Asn Ile Glu Pro Arg Ala Pro Glu Trp Tyr Phe Gly Gln
130 135 140
Lys Met Asp Tyr Leu Lys Asn Lys Val His Pro Ala Phe Val Arg Glu
145 150 155 160
Arg Arg Ala Met Lys Arg Asp Tyr Glu Glu Phe Lys Val Arg Ile Asn
165 170 175
Ser Leu Val Ala Thr Ala Gln Lys Val Pro Glu Asp Gly Trp Thr Met
180 185 190
Gln Asp Gly Thr Pro Trp Pro Gly Asn Asn Val Arg Asp His Pro Gly
195 200 205
Met Ile Gln Val Phe Leu Gly Gln Asp Gly Val Arg Asp Val Glu Gly
210 215 220
Asn Glu Leu Pro Arg Leu Val Tyr Val Ser Arg Glu Lys Arg Pro Gly
225 230 235 240
Phe Asp His His Lys Lys Ala Gly Ala Met Asn Ala Leu Val Arg Ala
245 250 255
Ser Ala Ile Ile Thr Asn Ala Pro Tyr Leu Leu Asn Val Asp Cys Asp
260 265 270
His Tyr Ile Asn Asn Ser Lys Ala Leu Arg Glu Ala Met Cys Phe Met
275 280 285
Met Asp Pro Gln Leu Gly Lys Lys Val Cys Tyr Val Gln Phe Pro Gln
290 295 300
Arg Phe Asp Gly Ile Asp Arg His Asp Arg Tyr Ser Asn Arg Asn Val
305 310 315 320

Val Phe Phe Asp Ile Asn Met Lys Gly Leu Asp Gly Ile Gln Gly Pro
 325 330 335
 Ile Tyr Val Gly Thr Gly Cys Val Phe Arg Arg Tyr Ala Leu Tyr Gly
 340 345 350
 Tyr Asp Ala Pro Ala Lys Lys Lys Pro Pro Ser Lys Thr Cys Asn Cys
 355 360 365
 Trp Pro Lys Trp Cys Cys Leu Cys Cys Gly Ser Arg Lys Lys Lys Asn
 370 375 380
 Ala Asn Ser Lys Lys Glu Lys Lys Arg Lys Val Lys His Ser Glu Ala
 385 390 395 400
 Ser Lys Gln Ile His Ala Leu Glu Asn Ile Glu Ala Gly Asn Glu Gly
 405 410 415
 Thr Asn Asn Glu Lys Thr Ser Asn Leu Thr Gln Thr Lys Leu Glu Lys
 420 425 430
 Arg Phe Gly Gln Ser Pro Val Phe Val Ala Ser Thr Leu Leu Asp Asp
 435 440 445
 Gly Gly Val Pro His Gly Val Ser Pro Ala Ser Leu Leu Lys Glu Ala
 450 455 460
 Ile Gln Val Ile Ser Cys Gly Tyr Glu Asp Lys Thr Glu Trp Gly Lys
 465 470 475 480
 Glu Val Gly Trp Ile Tyr Gly Ser Val Thr Glu Asp Ile Leu Thr Gly
 485 490 495
 Phe Lys Met His Cys His Gly Trp Arg Ser Val Tyr Cys Ile Pro Lys
 500 505 510
 Arg Pro Ala Phe Lys Gly Ser Ala Pro Ile Asn Leu Ser Asp Arg Leu
 515 520 525
 His Gln Val Leu Arg Trp Ala Leu Gly Ser Val Glu Ile Phe Phe Ser
 530 535 540
 Arg His Cys Pro Ile Trp Tyr Gly Tyr Gly Gly Leu Lys Leu Leu
 545 550 555 560
 Glu Arg Phe Ser Tyr Ile Asn Ser Val Val Tyr Pro Trp Thr Ser Leu
 565 570 575
 Pro Leu Leu Val Tyr Cys Thr Leu Pro Ala Ile Cys Leu Leu Thr Gly
 580 585 590
 Lys Phe Ile Val Pro Glu Ile Ser Asn Tyr Ala Ser Leu Val Phe Met
 595 600 605
 Ala Leu Phe Ile Ser Ile Ala Ala Thr Gly Ile Leu Glu Met Gln Trp
 610 615 620
 Gly Gly Val Ser Ile Asp Asp Trp Trp Arg Asn Glu Gln Phe Trp Val
 625 630 635 640

Ile Gly Gly Val Ser Ser His Leu Phe Ala Leu Phe Gln Gly Leu Leu
645 650

Lys Val Leu Ala Gly Val Asn Thr Asn Phe Thr Val Thr Ser Lys Ala
660 665 670

Ala Asp Asp Gly Glu Phe Ser Glu Leu Tyr Ile Phe Lys Trp Thr Ser
675 680 685

Leu Leu Ile Pro Pro Met Thr Leu Leu Ile Met Asn Ile Val Gly Val
690 695 700

Val Val Gly Ile Ser Asp Ala Ile Asn Asn Gly Tyr Asp Ser Trp Gly
705 710 715 720

Pro Leu Phe Gly Arg Leu Phe Phe Ala Leu Trp Val Ile Leu His Leu
725 730 735

Tyr Pro Phe Leu Lys Gly Leu Leu Gly Lys Gln Asp Arg Met Pro Thr
740 745 750

Ile Ile Leu Val Trp Ser Ile Leu Leu Ala Ser Ile Leu Thr Leu Met
755 760 765

Trp Val Arg Ile Asn Pro Phe Val Ser Arg Asp Gly Pro Val Leu Glu
770 775 780

Ile Cys Gly Leu Asn Cys Asp Glu Ser
785 790

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<211> 1733
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<213> Triticum aestivum

<220>
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<222> (262)

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caaatgagct tagaagaagag atttggccag tcagcagcat ttgttgcctc cactctgatg 480
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<210> 20
 <211> 506
 <212> PRT
 <213> Triticum aestivum

<220>
 <221> UNSURE
 <222> (88)

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 20 25 30
 Tyr Ala Asn Arg Asn Thr Val Phe Phe Asp Ile Asn Leu Arg Gly Leu
 35 40 45
 Asp Gly Ile Gln Gly Pro Val Tyr Val Gly Thr Gly Cys Val Phe Asn
 50 55 60
 Arg Thr Ala Ile Tyr Gly Tyr Glu Pro Pro Ile Lys Ala Lys Lys Pro
 65 70 75 80
 Gly Phe Leu Ala Ser Leu Cys Xaa Gly Lys Lys Lys Ala Ser Lys Ser
 85 90 95
 Lys Lys Arg Ser Ser Asp Lys Lys Lys Ser Asn Lys His Val Asp Ser
 100 105 110
 Ser Val Pro Val Phe Asn Leu Glu Asp Ile Glu Glu Gly Val Glu Gly
 115 120 125
 Ala Gly Phe Asp Asp Glu Lys Ser Val Leu Met Ser Gln Met Ser Leu
 130 135 140
 Glu Lys Arg Phe Gly Gln Ser Ala Ala Phe Val Ala Ser Thr Leu Met
 145 150 155 160
 Glu Tyr Gly Gly Val Pro Gln Ser Ser Thr Pro Glu Ser Leu Leu Lys
 165 170 175
 Glu Ala Ile His Val Ile Ser Cys Gly Tyr Glu Asp Lys Ser Glu Trp
 180 185 190

Gly Thr Glu Ile Gly Trp Ile Tyr Gly Ser Val Thr Glu Asp Ile Leu
195 200 205

Thr Gly Phe Lys Met His Ala Arg Gly Trp Arg Ser Ile Tyr Cys Met
210 215 220

Pro Lys Arg Pro Ala Phe Lys Gly Ser Ala Pro Ile Asn Leu Ser Asp
225 230 235 240

Arg Leu Asn Gln Val Leu Arg Trp Ala Leu Gly Ser Val Glu Ile Leu
245 250 255

Phe Ser Arg His Cys Pro Leu Trp Tyr Gly Tyr Gly Arg Leu Lys
260 265 270

Phe Leu Glu Arg Phe Ala Tyr Ile Asn Thr Thr Ile Tyr Pro Leu Thr
275 280 285

Ser Leu Pro Leu Leu Val Tyr Cys Ile Leu Pro Ala Ile Cys Leu Leu
290 295 300

Thr Gly Lys Phe Ile Met Pro Glu Ile Ser Asn Leu Ala Ser Ile Trp
305 310 315 320

Phe Ile Ala Leu Phe Leu Ser Ile Phe Ala Thr Gly Ile Leu Glu Met
325 330 335

Arg Trp Ser Gly Val Gly Ile Asp Glu Trp Trp Arg Asn Glu Gln Phe
340 345 350

Trp Val Ile Gly Gly Ile Ser Ala His Leu Phe Ala Val Phe Gln Gly
355 360 365

Leu Leu Lys Val Leu Ala Gly Ile Asp Thr Asn Phe Thr Val Thr Ser
370 375 380

Lys Ala Asn Asp Glu Glu Gly Asp Phe Ala Glu Leu Tyr Met Phe Lys
385 390 395 400

Trp Thr Thr Leu Leu Ile Pro Pro Thr Thr Ile Leu Ile Ile Asn Met
405 410 415

Val Gly Val Val Ala Gly Thr Ser Tyr Ala Ile Asn Ser Gly Tyr Gln
420 425 430

Ser Trp Gly Pro Leu Phe Gly Lys Leu Phe Phe Ala Phe Trp Val Ile
435 440 445

Val His Leu Tyr Pro Phe Leu Lys Gly Leu Met Gly Arg Gln Asn Arg
450 455 460

Thr Pro Thr Ile Val Ile Val Trp Ala Val Leu Leu Ala Ser Ile Phe
465 470 475 480

Ser Leu Leu Trp Val Arg Val Asp Pro Phe Thr Thr Arg Leu Ala Gly
485 490 495

Pro Asn Ile Gln Thr Cys Gly Ile Asn Cys
500 505

<210> 21
 <211> 1029
 <212> DNA
 <213> Triticum aestivum

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<210> 22
 <211> 340
 <212> PRT
 <213> Triticum aestivum

<400> 22
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 20 25 30
 Arg Ile His Pro Leu Pro Phe Ala Asp Pro Asn Leu Pro Val Gln Pro
 35 40 45
 Arg Ser Met Asp Pro Ser Lys Asp Leu Ala Ala Tyr Gly Tyr Gly Ser
 50 55 60
 Val Ala Trp Lys Glu Arg Met Glu Gly Trp Lys Gln Lys Gln Glu Arg
 65 70 75 80
 Leu Gln His Val Arg Ser Glu Gly Gly Gly Asp Trp Asp Gly Asp Asp
 85 90 95
 Ala Asp Leu Pro Leu Met Asp Glu Ala Arg Gln Pro Leu Ser Arg Lys
 100 105 110
 Val Pro Ile Ser Ser Ser Arg Ile Asn Pro Tyr Arg Met Ile Ile Val
 115 120 125
 Ile Arg Leu Val Val Leu Gly Phe Phe Phe His Tyr Arg Val Met His
 130 135 140
 Pro Ala Lys Asp Ala Phe Ala Leu Trp Leu Ile Ser Val Ile Cys Glu
 145 150 155 160

Ile Trp Phe Ala Met Ser Cys Ile Leu Asp Gln Phe Pro Lys Trp Phe
165 170 175

Pro Ile Glu Arg Glu Thr Tyr Leu Asp Arg Leu Ser Leu Arg Phe Asp
180 185 190

Lys Glu Gly Gln Pro Ser Gln Leu Ala Pro Ile Asp Phe Phe Val Ser
195 200 205

Thr Val Asp Pro Thr Lys Glu Pro Pro Leu Val Thr Ala Asn Thr Val
210 215 220

Leu Ser Ile Leu Ser Val Asp Tyr Pro Val Glu Lys Val Ser Cys Tyr
225 230 235 240

Val Ser Asp Asp Gly Ala Ala Met Leu Thr Phe Glu Ala Leu Ser Glu
245 250 255

Thr Ser Glu Phe Ala Lys Lys Trp Val Pro Phe Ser Lys Lys Phe Asn
260 265 270

Ile Glu Pro Arg Ala Pro Glu Trp Tyr Phe Gln Gln Lys Ile Asp Tyr
275 280 285

Leu Lys Asp Lys Val Ala Ala Ser Phe Val Arg Glu Arg Arg Ala Met
290 295 300

Lys Arg Glu Tyr Glu Glu Phe Lys Val Arg Ile Asn Ala Leu Val Ala
305 310 315 320

Lys Ala Gln Lys Val Pro Glu Glu Gly Trp Thr Met Gln Asp Gly Ser
325 330 335

Pro Trp Pro Gly
340

<210> 23

<211> 2663

<212> DNA

<213> Picramnia pentandra

<400> 23

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 <211> 740
 <212> PR
 <213> Picramnia pentandra

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Thr Val Leu Ser Ile Leu Ala Val Asp Tyr Pro Val Asp Lys Val Thr
          35          40          45
Cys Tyr Val Ser Asp Asp Gly Ala Ala Met Leu Thr Phe Glu Ala Leu
          50          55          60
Ser Glu Thr Ser Glu Phe Ala Arg Lys Trp Val Pro Phe Cys Lys Lys
          65          70          75          80
Phe Ser Ile Glu Pro Arg Ala Pro Glu Trp Tyr Phe Ser Gln Lys Met
          85          90          95
Asp Tyr Leu Lys Asn Lys Val His Pro Ser Phe Val Arg Glu Arg Arg
          100          105          110
Ala Met Lys Arg Glu Tyr Glu Val Phe Lys Val Arg Ile Asn Gly Leu
          115          120          125

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Val Ala Met Ala Gln Lys Val Pro Glu Asp Gly Trp Thr Met Gln Asp
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 Gly Thr Pro Trp Pro Gly Asn Asn Val Arg Asp His Pro Gly Met Ile
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 Gln Val Phe Leu Gly His Asn Gly Val Arg Asp Val Glu Gly Asn Glu
 165 170 175
 Leu Pro Arg Leu Ile Tyr Val Ser Arg Glu Lys Arg Pro Gly Phe Glu
 180 185 190
 His His Lys Lys Ala Gly Ala Met Asn Ser Leu Val Arg Val Ser Ala
 195 200 205
 Val Ile Ser Asn Ala Pro Tyr Ile Leu Asn Val Asp Cys Asp His Tyr
 210 215 220
 Ile Asn Asn Ser Lys Ala Leu Arg Glu Ala Met Cys Phe Met Met Asp
 225 230 235 240
 Pro Thr Ser Gly Lys Lys Leu Cys Tyr Val Gln Phe Pro Gln Arg Phe
 245 250 255
 Asp Gly Ile Asp Arg His Asp Arg Tyr Ser Asn Arg Asn Val Val Phe
 260 265 270
 Phe Asp Ile Asn Met Lys Gly Leu Asp Gly Ile Gln Gly Pro Ile Tyr
 275 280 285
 Val Gly Thr Gly Cys Val Phe Arg Arg Val Ala Leu Tyr Gly Tyr Asp
 290 295 300
 Ala Pro Val Thr Lys Lys Ser Pro Gly Lys Ala Cys Asn Cys Trp Pro
 305 310 315 320
 Lys Trp Leu Cys Cys Cys Cys Gly Ser Arg Lys Asn Lys Lys Ser Lys
 325 330 335
 Pro Lys Lys Glu Lys Lys Lys Ser Lys Asn Arg Glu Ala Ser Lys Gln
 340 345 350
 Ile His Ala Leu Glu Asn Ile Glu Glu Gly Met Gly Gly Leu Asn Ser
 355 360 365
 Glu Lys Ser Cys Glu Thr Thr Pro Leu Lys Leu Glu Lys Lys Phe Gly
 370 375 380
 Gln Ser Pro Val Phe Val Ala Ser Thr Leu Leu Glu Asp Gly Gly Val
 385 390 395 400
 Pro Gln Asp Ala Thr Pro Ala Ala Leu Leu Lys Glu Ala Ile Gln Val
 405 410 415
 Ile Ser Cys Gly Tyr Glu Asp Lys Thr Glu Trp Gly Lys Glu Val Gly
 420 425 430
 Trp Ile Tyr Gly Ser Val Thr Glu Asp Ile Leu Thr Gly Phe Lys Met
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His Cys His Gly Trp Arg Ser Val Tyr Cys Met Pro Ala Arg Pro Ala
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 Phe Lys Gly Ser Ala Pro Ile Asn Leu Ser Asp Arg Leu His Gln Val
 465 470 475 480
 Leu Arg Trp Ala Leu Gly Ser Val Glu Ile Phe Leu Ser Arg His Cys
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 Pro Leu Trp Tyr Gly Tyr Gly Gly Glu Lys Trp Leu Glu Arg Phe
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 530 535 540
 Val Pro Glu Ile Ser Asn Tyr Ala Ser Ile Leu Phe Met Leu Leu Phe
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 Ile Phe Ile Ala Ala Thr Ser Ile Leu Glu Met Gln Trp Gly Gly Val
 565 570 575
 Gly Ile Asp Asp Trp Trp Arg Asn Glu Gln Phe Trp Val Ile Gly Gly
 580 585 590
 Val Ser Ser His Leu Phe Ala Leu Phe Gln Gly Leu Leu Lys Val Leu
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 Ala Gly Val Asn Thr Asn Phe Thr Val Thr Ser Lys Ala Ala Asp Glu
 610 615 620
 Gly Asp Phe Ser Glu Leu Tyr Leu Phe Lys Trp Thr Thr Leu Leu Ile
 625 630 635 640
 Pro Pro Thr Thr Leu Leu Ile Ile Asn Ile Val Gly Val Val Val Gly
 645 650 655
 Val Ser Asp Ala Ile Asn Asn Gly Tyr Asp Ser Trp Gly Pro Leu Phe
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 Gly Arg Leu Phe Phe Ala Phe Trp Val Ile Val His Leu Tyr Pro Phe
 675 680 685
 Leu Lys Gly Leu Leu Gly Lys Gln Asp Arg Thr Pro Thr Ile Ile Val
 690 695 700
 Val Trp Ser Ile Leu Leu Ala Ser Ile Leu Thr Leu Leu Trp Val Arg
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 Leu Asn Cys Asp
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 <212> DNA
 <213> *Impatiens balsamia*

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 <213> Impatiens balsamia

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 35 40 45
 Gly Lys Ser Ala Thr Gly Asp Thr Phe Val Ala Cys Asn Glu Cys Gly
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 Phe Pro Val Cys Arg Pro Cys Tyr Glu Tyr Glu Arg Lys Asp Gly Asn
 65 70 75 80
 Gln Cys Cys Pro Gln Cys Lys Thr Arg Tyr Lys Arg Gln Lys Gly Ser
 85 90 95
 Pro Arg Val Glu Gly Asp Glu Glu Glu Asp Val Asp Asn Leu Glu
 100 105 110
 Asn Glu Phe Asn Tyr Ser Gly Lys Gly Lys Asn Gln Lys Lys Val Thr
 115 120 125
 Thr Ala Arg Arg Pro Trp Gln Gly Asp Gln Gln Asp Ile Glu Leu Ser
 130 135 140
 Val Ser Ser Ser Arg His Asp Glu Ser Gln Gln Pro Val Pro Leu Leu
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 Thr His Gly His Ser Val Ser Gly Glu Ile Pro Thr Pro Asp Asn His
 165 170 175
 Ser Ile Arg Thr Thr Ser Gly Pro Ile Gly Pro Val Glu Lys Ser Ile
 180 185 190
 Pro Tyr Ile Asp Pro Arg Gln Pro Val Ala Val Arg Ile Ile Val Asp
 195 200 205
 Pro Ser Lys Asp Leu Asn Ser Tyr Gly Leu Gly Asn Val Asp Trp Lys
 210 215 220
 Glu Arg Val Glu Gly Trp Lys Leu Lys Gln Glu Lys Asn Met Val Gln
 225 230 235 240

Met Thr Ser Arg Tyr Pro Glu Gly Lys Gly Asp Thr Glu Gly Thr Gly
 245 250 255
 Ser Asn Gly Glu Glu Leu Gln Met Ala Ala Asp Asp Ile Arg Gln Pro
 260 265 270
 Met Ser Arg Ile Val Pro Ile Ser Ser Thr His Leu Thr Pro Tyr Arg
 275 280 285
 Val Val Ile Ile Leu Arg Leu Ile Ile Leu Gly Phe Phe Leu Gln Tyr
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 Arg Cys Thr His Pro Val Lys Asp Ala Tyr Pro Leu Trp Leu Thr Ser
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 Pro Lys Trp Ser Pro Val Asn Arg Glu Thr Tyr Leu Asp Arg Leu Ser
 340 345 350
 Met Arg Phe Asp Arg Glu Gly Glu Pro Ser Gln Leu Ala Pro Ile Asp
 355 360 365
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 385 390 395 400
 Val Ser Cys Tyr Val Ser Asp Asp Gly Ser Ala Met Leu Thr Phe Glu
 405 410 415
 Ala Leu Ser Glu Thr Ala Glu Phe Ala Lys Lys Trp Ala Pro Phe Cys
 420 425 430
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 435 440 445
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 450 455 460
 Arg Arg Ala Met Lys Arg Glu Tyr Glu Glu Phe Lys Val Arg Ile Asn
 465 470 475 480
 Ala Leu Val Ala Lys Ala Gln Lys Val Pro Glu Glu Gly Trp Thr Met
 485 490 495
 Gln Asp Gly Thr Pro Trp Pro Gly Asn Asn Ser Arg Asp His Pro Gly
 500 505 510
 Met Ile Gln Val Phe Leu Gly His Ser Gly Gly Phe Asp Thr Glu Gly
 515 520 525
 Asn Glu Leu Pro Arg Leu Val Tyr Val Ser Arg Glu Lys Arg Pro Gly
 530 535 540
 Phe Gln His His Lys Lys Ala Gly Ala Met Asn Ala Leu Ile Arg Val
 545 550 555 560

Ser Ala Val Leu Thr Asn Gly Ala Tyr Leu Leu Asn Val Asp Cys Asp
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 His Tyr Phe Asn Asn Ser Lys Cys Leu Lys Glu Ala Met Cys Phe Met
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 Met Asp Pro Asn Leu Gly Lys Lys Thr Cys Tyr Val Gln Phe Pro Gln
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 Arg Phe Asp Gly Ile Asp Leu His Asp Arg Tyr Ala Asn Arg Asn Ile
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 Val Tyr Val Gly Thr Gly Cys Cys Phe Asn Arg Gln Ala Leu Tyr Gly
 645 650 655
 Tyr Asp Pro Val Leu Thr Glu Glu Asp Leu Glu Pro Asn Ile Ile Ile
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 Lys Ser Cys Cys Gly Ser Arg Lys Lys Gly Lys Gly Asn Lys Lys
 675 680 685
 Tyr Ile Asp Lys Asn Arg Ala Leu Lys Arg Thr Glu Ser Thr Ala Pro
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 Ile Phe Asn Met Glu Asp Ile Glu Glu Gly Ile Glu Gly Tyr Asp Asp
 705 710 715 720
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 Thr Arg Gly Trp Ile Ser Ile Tyr Cys Met Pro Pro Arg Pro Ala Phe
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 Lys Gly Ser Ala Pro Ile Asn Leu Ser Asp Arg Leu Asn Gln Val Leu
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 Arg Trp Ala Leu Gly Ser Ile Glu Ile Leu Leu Ser Arg His Cys Pro
 835 840 845
 Ile Trp Tyr Gly Tyr Ser Gly Arg Leu Lys Phe Leu Glu Arg Leu Ala
 850 855 860
 Tyr Ile Asn Thr Ile Val Tyr Pro Leu Thr Ser Ile Pro Leu Leu Ala
 865 870 875 880

Tyr Cys Thr Leu Pro Ala Ile Cys Leu Leu Thr Gly Lys Phe Ile Val
 885 890 895
 Pro Glu Ile Ser Asn Tyr Ala Ser Ile Trp Phe Ile Leu Leu Phe Val
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 Ser Ile Phe Ser Thr Gly Ile Leu Glu Leu Arg Trp Ser Gly Val Thr
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 930 935 940
 Ser Ala His Leu Phe Ala Val Phe Gln Gly Leu Leu Lys Val Leu Ala
 945 950 955 960
 Gly Ile Asp Thr Asn Phe Thr Val Thr Ser Lys Ala Ser Asp Glu Asp
 965 970 975
 Gly Asp Phe Ala Glu Leu Tyr Val Phe Lys Trp Thr Ser Leu Leu Ile
 980 985 990
 Pro Pro Thr Thr Ile Leu Val Val Asn Met Val Gly Ile Val Ala Gly
 995 1000 1005
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 1045 1050 1055
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 1075 1080 1085
 Ile Asp Cys
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<211> 1560

<212> DNA

<213> Glycine max

<400> 27

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gactaccag	tggataaagg	ctcctgttat	gtctctgatg	atggtgctgc	tatgttgaca	180
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tataatatcg	aacctcgggc	acctgagtg	tattttgcac	agaagattga	ctacttgaaa	300
gataaagttc	aaccatcatt	tgtcaaatg	cgtagagcaa	tgaagagaga	atatgaagaa	360
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aatgcacttg	ttcagagtgc	agcagtcctt	actaatggac	ctttcttatt	gaatcttgat	660

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 <213> Glycine max

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 Cys Tyr Val Ser Asp Asp Gly Ala Ala Met Leu Thr Phe Glu Ala Leu
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 Ala Glu Thr Ser Glu Phe Ala Arg Lys Trp Val Pro Phe Ser Lys Lys
 65 70 75 80
 Tyr Asn Ile Glu Pro Arg Ala Pro Glu Trp Tyr Phe Ala Gln Lys Ile
 85 90 95
 Asp Tyr Leu Lys Asp Lys Val Gln Pro Ser Phe Val Lys Asp Arg Arg
 100 105 110
 Ala Met Lys Arg Glu Tyr Glu Glu Phe Lys Ile Arg Ile Asn Gly Leu
 115 120 125
 Val Ala Lys Ala Gln Lys Ile Pro Glu Glu Gly Trp Val Met Gln Asp
 130 135 140
 Gly Thr Pro Trp Pro Gly Asn Asn Thr Arg Asp His Pro Gly Met Ile
 145 150 155 160
 Gln Val Phe Leu Gly Gln Ser Gly Gly Leu Asp Thr Glu Gly Asn Glu
 165 170 175
 Leu Pro Arg Leu Val Tyr Val Ser Arg Glu Lys Arg Pro Gly Phe Gln
 180 185 190

His His Lys Lys Ala Gly Ala Met Asn Ala Leu Val Arg Val Ser Ala
 195 200 205
 Val Leu Thr Asn Gly Pro Phe Leu Leu Asn Leu Asp Cys Asp His Tyr
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 Ile Asn Asn Ser Lys Ala Leu Arg Glu Ala Met Cys Phe Met Met Asp
 225 230 235 240
 Pro Asn Leu Gly Lys Asn Val Cys Tyr Val Gln Phe Pro Gln Arg Phe
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 Asp Gly Ile Asp Arg Asn Asp Arg Tyr Ala Asn Arg Asn Thr Val Phe
 260 265 270
 Phe Asp Ile Asn Leu Arg Gly Leu Asp Gly Ile Gln Gly Pro Val Tyr
 275 280 285
 Val Gly Thr Gly Cys Val Phe Asn Arg Thr Ala Leu Tyr Gly Tyr Glu
 290 295 300
 Pro Pro Ile Lys Pro Lys His Lys Lys Pro Gly Phe Leu Ser Ser Leu
 305 310 315
 Cys Gly Gly Asn Arg Lys Lys Arg Ser Lys Ser Ser Lys Lys Gly Ser
 325 330 335
 Asp Lys Lys Lys Ser Ser Lys Asn Val Asp Pro Thr Val Pro Ile Phe
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 Ser Leu Glu Asp Ile Glu Glu Gly Val Glu Gly Ala Gly Phe Asp Asp
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 370 375 380
 Gln Ser Ala Val Phe Val Ala Ser Thr Leu Met Glu Asn Gly Gly Val
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<210> 29

<211> 3626

<212> DNA

<213> Triticum aestivum

<400> 29

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gcctccagtg	caagaccaag	tacaagcgcc	acagagggag	cccagcgatc	cgcggggagg	300
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ggaattgtgc	ctggaaaagag	agagttgatg	gctggaaaaa	gaagcaggac	aagggtgcga	720
ttcccatgat	taatggggaca	agcattgtct	cctctgaagg	tcggggcagct	actgacatcg	780
atgcctctac	tgaatacaac	atggaagacg	ctttactgaa	tgatgaaact	gcgccgcctc	840
tactatagaa	agtcceccatt	gcttctccca	aaataaaatc	ctacagaatg	gtcattgttc	900
tgcggttggt	gtgtctaaagc	atctctctgc	actaccgtct	cacaaatcct	gtcgttaatg	960
catcacccat	gtggcttttta	tcgtttatat	gtgagatttg	gtttgcttta	tcctggatgc	1020
tggatcagtt	cccgaaagtgg	tttccaatca	accgggagac	ctaccttgat	agactgsgtt	1080
taaggtatga	ccggaagaagt	gaacogtctc	agttgggtgc	tgttgacata	tttgtcagta	1140
cagtcgagcc	cttgaaggag	ccacctatcg	ctactgcca	cactgtgcta	tcactctctg	1200
ctgttgatta	tcocgtggac	aaggtctctt	gctatgtatc	tgatgacgga	gcttcaatgc	1260
tgacttttga	cgcattggct	gagacttcag	agtttgctag	gaaatgggta	ccatttgtga	1320
agaagtatga	cattgaaccc	agagctcccg	agttttactt	ttgccagaaa	attgattacc	1380
tgaaaagacaa	agtcacgctt	tcatttgtta	aagaccgccc	ggccatgaag	agagaatatg	1440
aagaatttaa	aatcaggata	aatgccctag	tttctaaggc	attgaaagtc	cccgagggag	1500
gatggatcat	cgaaagtggc	acaccatggc	caggaaaaca	taccagggac	attcctggaa	1560
tgattccaggt	tttctctggt	cacagttggt	gccttgatac	tgagggtaat	gagctcccc	1620
gcttagttta	tgtgtctcgt	gaaaagcgtg	ctgggttcca	gcaccacaa	aaaggtcgtg	1680
ccatgaactga	cctgtgtctg	gtctcagctg	tccttactaa	tggacaatac	atgttgaatc	1740
ttgatttgtga	tcactacatc	aaacaacgca	aggtgtctcg	agaaagctatg	tgcttctcaa	1800
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ttgatagcaa	tgatcgatat	gcaaacaggga	acactgtctt	ttttgatatt	aacttgaggg	1920
gccttgacgg	tcactcaagg	ccagtttatg	ttgggaactgg	tttgttttcc	tcagagaacag	1980
ctatctatgg	ttatgagccc	ccaatttaag	cgaagaagcc	aggtttcttg	gcatcactat	2040
gtggggcgcaa	gaagaaggca	agcaagtcaa	agaaaaggag	ctcagataag	aaaaagctga	2100
acaagcatgt	ggacagttgt	gttccagtat	tcaatctcga	agacatagag	gaggggtgtg	2160
aaggtgtcgt	gtttgatgat	gagaaatcag	ttctcatgtc	tcaaatgagc	ttagagaaag	2220
gattttggcca	gtccagcaga	tttgttgctt	ccactctgat	ggaatatggt	gggtgtcctc	2280
agtctctcac	tcagaaatct	cttttgaag	aagctatcca	tgctataagt	tgtggctatg	2340
aggacaagtc	tgaatgggga	actgagattg	ttgtgatcta	tggagtctgc	acagaagata	2400
ttcttactgg	attcaagatg	cacgcaagag	gctggcgctc	agctctatgc	atgcccaagc	2460
gcccagcttt	caagggtctt	gcccccatca	atctttcaga	tgctctcaga	atgctgtctc	2520
ggtgggctct	cgttctctgtt	gaaattcttt	tcagcggcca	ttgcccttca	tggttatggct	2580
acggagggcg	ccctcaagttc	ctggagagat	tgctttacat	caacaccacc	atttaccacc	2640
taacctctct	cccgcttcta	gtctattgta	tattgcctgc	tatctgtctg	ctcactggaa	2700
agttcatcat	gcagagattt	agcaacttgg	ccagtatctc	gttctattgc	cttctctctt	2760
caattttctg	cactgggtatc	cttgagatga	ggtggagttg	tggttgccatt	gacgagtggt	2820
ggaggaatga	acagttcttg	gtcatctggg	gtatctctgc	acatctcttc	gcogtcttcc	2880
aggggtctct	gaaggtgctt	gccggtatcg	acaccaactt	cactgtcacc	ctcaaggcta	2940
atgacgaaga	agggcgactt	gctgagctct	acatgttcaa	gtggacgagc	cttctcatcc	3000
ctccgacgac	catttttgatc	attaaacatt	tttgtgtcgt	tgctggcacc	tcctacgccca	3060
tcacacagtg	ttaccaatcca	tgggggccgc	ctctttggaa	gctctctctt	gccttctcgg	3120
tgatttttcca	ctctataccca	ttcctcaagg	ctctttatgg	agcgcaaaac	cgcaaccgca	3180
cgattgtcat	cgcttgggct	gtcctcctcg	ctctctatct	ctccttgtgt	tggggtctgtg	3240
tgatctcatt	cactaccgct	ctcgctggcc	aaacatccca	aacctgtggc	atcaactgct	3300
aggaaaagtgt	gagtttgtat	agacagaaaa	tataacagtg	atcgagcaac	aaccocggga	3360
gccagagaat	atttatgttg	gggtgtgtgaa	ttactacgtt	tgagaaaagt	gtcaaaatgt	3420
agaaaaacaca	tttgtaaata	gatgtaatat	accatctacc	gttttcaatga	ggttaagctc	3480
ttcttttttt	ggaacaaagg	aatctcattg	gtaaacctat	aggaattttc	ctatgaggca	3540
ctttgtattg	taggaaatgga	cctatgaaat	gttgtattta	ttatttatat	aaattattcc	3600
tgtccttcac	atttttgagg	agtttt				3626

<210> 30
 <211> 1080
 <212> PRT
 <213> Triticum aestivum

<400> 30
 Met Asp Gly Asp Ala Asp Ala Leu Lys Ser Gly Arg His Gly Ala Gly
 1 5 10 15
 Asp Val Cys Gln Ile Cys Ala Asp Gly Leu Gly Thr Thr Leu Asp Gly
 20 25 30
 Asp Val Phe Thr Ala Cys Asp Val Cys Arg Phe Pro Val Cys Arg Pro
 35 40 45
 Cys Tyr Glu His Glu Arg Lys Glu Gly Thr Gln Ala Cys Leu Gln Cys
 50 55 60
 Lys Thr Lys Tyr Lys Arg His Arg Gly Ser Pro Ala Ile Arg Gly Glu
 65 70 75 80
 Glu Gly Asp Asp Thr Asp Ala Asp Asp Gly Ser Asp Phe Asn Tyr Pro
 85 90 95
 Ala Ser Gly Thr Glu Asp Gln Lys Gln Lys Ile Ala Asp Arg Met Arg
 100 105 110
 Ser Trp Arg Met Asn Thr Gly Gly Ser Gly Asn Val Gly His Pro Lys
 115 120 125
 Tyr Asp Ser Gly Glu Ile Gly Leu Ser Lys Tyr Asp Ser Gly Glu Ile
 130 135 140
 Pro Arg Gly Tyr Val Pro Ser Val Thr Asn Ser Gln Met Ser Gly Glu
 145 150 155 160
 Ile Pro Gly Ala Ser Pro Asp His His Met Met Ser Pro Thr Gly Asn
 165 170 175
 Ile Ser Arg Arg Ala Pro Phe Pro Tyr Val Asn His Ser Pro Asn Pro
 180 185 190
 Ser Arg Glu Phe Ser Gly Ser Ile Gly Asn Val Ala Trp Lys Glu Arg
 195 200 205
 Val Asp Gly Trp Lys Met Lys Gln Asp Lys Gly Ala Ile Pro Met Thr
 210 215 220
 Asn Gly Thr Ser Ile Ala Pro Ser Glu Gly Arg Ala Ala Thr Asp Ile
 225 230 235 240
 Asp Ala Ser Thr Glu Tyr Asn Met Glu Asp Ala Leu Leu Asn Asp Glu
 245 250 255
 Thr Arg Gln Pro Leu Ser Arg Lys Val Pro Ile Ala Ser Ser Lys Ile
 260 265 270
 Asn Pro Tyr Arg Met Val Ile Val Leu Arg Leu Val Val Leu Ser Ile
 275 280 285
 Phe Leu His Tyr Arg Leu Thr Asn Pro Val Arg Asn Ala Tyr Pro Leu
 290 295 300
 Trp Leu Leu Ser Val Ile Cys Glu Ile Trp Phe Ala Leu Ser Trp Ile
 305 310 315 320

Leu Asp Gln Phe Pro Lys Trp Phe Pro Ile Asn Arg Glu Thr Tyr Leu
 325 330 335
 Asp Arg Leu Ala Leu Arg Tyr Asp Arg Glu Gly Glu Pro Ser Gln Leu
 340 345 350
 Ala Ala Val Asp Ile Phe Val Ser Thr Val Asp Pro Leu Lys Glu Pro
 355 360 365
 Pro Ile Val Thr Ala Asn Thr Val Leu Ser Ile Leu Ala Val Asp Tyr
 370 375 380
 Pro Val Asp Lys Val Ser Cys Tyr Val Ser Asp Asp Gly Ala Ser Met
 385 390 395 400
 Leu Thr Phe Asp Ala Leu Ala Glu Thr Ser Glu Phe Ala Arg Lys Trp
 405 410 415
 Val Pro Phe Val Lys Lys Tyr Asp Ile Glu Pro Arg Ala Pro Glu Phe
 420 425 430
 Tyr Phe Cys Gln Lys Ile Asp Tyr Leu Lys Asp Lys Val Gln Pro Ser
 435 440 445
 Phe Val Lys Asp Arg Arg Ala Met Lys Arg Glu Tyr Glu Glu Phe Lys
 450 455 460
 Ile Arg Ile Asn Ala Leu Val Ser Lys Ala Leu Lys Val Pro Glu Glu
 465 470 475 480
 Gly Trp Ile Met Gln Asp Gly Thr Pro Trp Pro Gly Asn Asn Thr Arg
 485 490 495
 Asp His Pro Gly Met Ile Gln Val Phe Leu Gly His Ser Gly Gly Leu
 500 505 510
 Asp Thr Glu Gly Asn Glu Leu Pro Arg Leu Val Tyr Val Ser Arg Glu
 515 520 525
 Lys Arg Pro Gly Phe Gln His His Lys Lys Ala Gly Ala Met Asn Ala
 530 535 540
 Leu Val Arg Val Ser Ala Val Leu Thr Asn Gly Gln Tyr Met Leu Asn
 545 550 555 560
 Leu Asp Cys Asp His Tyr Ile Asn Asn Ser Lys Ala Val Arg Glu Ala
 565 570 575
 Met Cys Phe Leu Met Asp Pro Asn Leu Gly Pro Gln Val Cys Tyr Val
 580 585 590
 Gln Phe Pro Gln Arg Phe Asp Gly Ile Asp Arg Asn Asp Arg Tyr Ala
 595 600 605
 Asn Arg Asn Thr Val Phe Phe Asp Ile Asn Leu Arg Gly Leu Asp Gly
 610 615 620
 Ile Gln Gly Pro Val Tyr Val Gly Thr Gly Cys Val Phe Asn Arg Thr
 625 630 635 640

Ala Ile Tyr Gly Tyr Glu Pro Pro Ile Lys Ala Lys Lys Pro Gly Phe
645 650 655

Leu Ala Ser Leu Cys Gly Gly Lys Lys Lys Ala Ser Lys Ser Lys Lys
660 665 670

Arg Ser Ser Asp Lys Lys Lys Ser Asn Lys His Val Asp Ser Ser Val
675 680 685

Pro Val Phe Asn Leu Glu Asp Ile Glu Glu Gly Val Glu Gly Ala Gly
690 695 700

Phe Asp Asp Glu Lys Ser Val Leu Met Ser Gln Met Ser Leu Glu Lys
705 710 715 720

Arg Phe Gly Gln Ser Ala Ala Phe Val Ala Ser Thr Leu Met Glu Tyr
725 730 735

Gly Gly Val Pro Gln Ser Ser Thr Pro Glu Ser Leu Leu Lys Glu Ala
740 745 750

Ile His Val Ile Ser Cys Gly Tyr Glu Asp Lys Ser Glu Trp Gly Thr
755 760 765

Glu Ile Gly Trp Ile Tyr Gly Ser Val Thr Glu Asp Ile Leu Thr Gly
770 775 780

Phe Lys Met His Ala Arg Gly Trp Arg Ser Val Tyr Cys Met Pro Lys
785 790 795 800

Arg Pro Ala Phe Lys Gly Ser Ala Pro Ile Asn Leu Ser Asp Arg Leu
805 810 815

Asn Gln Val Leu Arg Trp Ala Leu Gly Ser Val Glu Ile Leu Phe Ser
820 825 830

Arg His Cys Pro Leu Trp Tyr Gly Tyr Gly Gly Arg Leu Lys Phe Leu
835 840 845

Glu Arg Phe Ala Tyr Ile Asn Thr Thr Ile Tyr Pro Leu Thr Ser Leu
850 855 860

Pro Leu Leu Val Tyr Cys Ile Leu Pro Ala Ile Cys Leu Leu Thr Gly
865 870 875 880

Lys Phe Ile Met Pro Glu Ile Ser Asn Leu Ala Ser Ile Trp Phe Ile
885 890 895

Ala Leu Phe Leu Ser Ile Phe Ala Thr Gly Ile Leu Glu Met Arg Trp
900 905 910

Ser Gly Val Gly Ile Asp Glu Trp Trp Arg Asn Glu Gln Phe Trp Val
915 920 925

Ile Gly Gly Ile Ser Ala His Leu Phe Ala Val Phe Gln Gly Leu Leu
930 935 940

Lys Val Leu Ala Gly Ile Asp Thr Asn Phe Thr Val Thr Ser Lys Ala
945 950 955 960

Asn Asp Glu Glu Gly Asp Phe Ala Glu Leu Tyr Met Phe Lys Trp Thr
 965 970 975
 Thr Leu Leu Ile Pro Pro Thr Thr Ile Leu Ile Ile Asn Met Val Gly
 980 985 990
 Val Val Ala Gly Thr Ser Tyr Ala Ile Asn Ser Gly Tyr Gln Ser Trp
 995 1000 1005
 Gly Pro Leu Phe Gly Lys Leu Phe Phe Ala Phe Trp Val Ile Val His
 1010 1015 1020
 Leu Tyr Pro Phe Leu Lys Gly Leu Met Gly Arg Gln Asn Arg Thr Pro
 1025 1030 1035 1040
 Thr Ile Val Ile Val Trp Ala Val Leu Leu Ala Ser Ile Phe Ser Leu
 1045 1050 1055
 Leu Trp Val Arg Val Asp Pro Phe Thr Thr Arg Leu Ala Gly Pro Asn
 1060 1065 1070
 Ile Gln Thr Cys Gly Ile Asn Cys
 1075 1080
 <210> 31
 <211> 685
 <212> PRT
 <213> Gossypium hirsutum
 <400> 31
 Arg Arg Trp Val Pro Phe Cys Lys Lys His Asn Val Glu Pro Arg Ala
 1 5 10 15
 Pro Glu Phe Tyr Phe Asn Glu Lys Ile Asp Tyr Leu Lys Asp Lys Val
 20 25 30
 His Pro Ser Phe Val Lys Glu Arg Arg Ala Met Lys Arg Glu Tyr Glu
 35 40 45
 Glu Phe Lys Val Arg Ile Asn Ala Leu Val Ala Lys Ala Gln Lys Lys
 50 55 60
 Pro Glu Glu Gly Trp Val Met Gln Asp Gly Thr Pro Trp Pro Gly Asn
 65 70 75 80
 Asn Thr Arg Asp His Pro Gly Met Ile Gln Val Tyr Leu Gly Ser Ala
 85 90 95
 Gly Ala Leu Asp Val Asp Gly Lys Glu Leu Pro Arg Leu Val Tyr Val
 100 105 110
 Ser Arg Glu Lys Arg Pro Gly Tyr Gln His His Lys Lys Ala Gly Ala
 115 120 125
 Glu Asn Ala Leu Val Arg Val Ser Ala Val Leu Thr Asn Ala Pro Phe
 130 135 140

Ile Leu Asn Leu Asp Cys Asp His Tyr Ile Asn Asn Ser Lys Ala Met
 145 150 155 160
 Arg Glu Ala Met Cys Phe Leu Met Asp Pro Gln Phe Gly Lys Lys Leu
 165 170 175
 Cys Tyr Val Gln Phe Pro Gln Arg Phe Asp Gly Ile Asp Arg His Asp
 180 185 190
 Arg Tyr Ala Asn Arg Asn Val Val Phe Phe Asp Ile Asn Met Leu Gly
 195 200 205
 Leu Asp Gly Leu Gln Gly Pro Val Tyr Val Gly Thr Gly Cys Val Phe
 210 215 220
 Asn Arg Gln Ala Leu Tyr Gly Tyr Asp Pro Pro Val Ser Glu Lys Arg
 225 230 235 240
 Pro Lys Met Thr Cys Asp Cys Trp Pro Ser Trp Cys Cys Cys Cys Cys
 245 250 255
 Gly Gly Ser Arg Lys Lys Ser Lys Lys Lys Gly Glu Lys Lys Gly Leu
 260 265 270
 Leu Gly Gly Leu Leu Tyr Gly Lys Lys Lys Met Met Gly Lys Asn
 275 280 285
 Tyr Val Lys Lys Gly Ser Ala Pro Val Phe Asp Leu Glu Glu Ile Glu
 290 295 300
 Glu Gly Leu Glu Gly Tyr Glu Glu Leu Glu Lys Ser Thr Leu Met Ser
 305 310 315
 Gln Lys Asn Phe Glu Lys Arg Phe Gly Gln Ser Pro Val Phe Ile Ala
 325 330 335
 Ser Thr Leu Met Glu Asn Gly Gly Leu Pro Glu Gly Thr Asn Ser Thr
 340 345 350
 Ser Leu Ile Lys Glu Ala Ile His Val Ile Ser Cys Gly Tyr Glu Glu
 355 360 365
 Lys Thr Glu Trp Gly Lys Glu Ile Gly Trp Ile Tyr Gly Ser Val Thr
 370 375 380
 Glu Asp Ile Leu Thr Gly Phe Lys Met His Cys Arg Gly Trp Lys Ser
 385 390 395 400
 Val Tyr Cys Val Pro Lys Arg Pro Ala Phe Lys Gly Ser Ala Pro Ile
 405 410 415
 Asn Leu Ser Asp Arg Leu His Gln Val Leu Arg Trp Ala Leu Gly Ser
 420 425 430
 Val Glu Ile Phe Leu Ser Arg His Cys Pro Leu Trp Tyr Gly Tyr Gly
 435 440 445
 Gly Lys Leu Lys Trp Leu Glu Arg Leu Ala Tyr Ile Asn Thr Ile Val
 450 455 460

Tyr Pro Phe Thr Ser Ile Pro Leu Leu Ala Tyr Cys Thr Ile Pro Ala
 465 470 475 480
 Val Cys Leu Leu Thr Gly Lys Phe Ile Ile Pro Thr Leu Ser Asn Leu
 485 490 495
 Thr Ser Val Trp Phe Leu Ala Leu Phe Leu Ser Ile Ile Ala Thr Gly
 500 505 510
 Val Leu Glu Leu Arg Trp Ser Gly Val Ser Ile Gln Asp Trp Trp Arg
 515 520 525
 Asn Glu Gln Phe Trp Val Ile Gly Gly Val Ser Ala His Leu Phe Ala
 530 535 540
 Val Phe Gln Gly Leu Leu Lys Val Leu Ala Gly Val Asp Thr Asn Phe
 545 550 555 560
 Thr Val Thr Ala Lys Ala Ala Asp Asp Thr Glu Phe Gly Glu Leu Tyr
 565 570 575
 Leu Phe Lys Trp Thr Thr Leu Leu Ile Pro Pro Thr Thr Leu Ile Ile
 580 585 590
 Leu Asn Met Val Gly Val Val Ala Gly Val Ser Asp Ala Ile Asn Asn
 595 600 605
 Gly Tyr Gly Ser Trp Gly Pro Leu Phe Gly Lys Leu Phe Phe Ala Phe
 610 615 620
 Trp Val Ile Leu His Leu Tyr Pro Phe Leu Lys Gly Leu Met Gly Arg
 625 630 635 640
 Gln Asn Arg Thr Pro Thr Ile Val Val Leu Trp Ser Ile Leu Leu Ala
 645 650 655
 Ser Ile Phe Ser Leu Val Trp Val Arg Ile Asp Pro Phe Leu Pro Lys
 660 665 670
 Gln Thr Gly Pro Val Leu Lys Gln Cys Gly Val Glu Cys
 675 680 685

 <210> 32
 <211> 701
 <212> PRT
 <213> *Gossypium hirsutum*

 <400> 32
 Asp Tyr Pro Val Glu Lys Val Ser Cys Tyr Val Ser Asp Asp Gly Ala
 1 5 10 15
 Ala Met Leu Thr Phe Glu Ala Leu Ser Glu Thr Ser Glu Phe Ala Arg
 20 25 30
 Lys Trp Val Pro Phe Cys Lys Lys Tyr Asn Ile Glu Pro Arg Ala Pro
 35 40 45
 Glu Trp Tyr Phe Ala Gln Lys Ile Asp Tyr Leu Lys Asp Lys Val Gln
 50 55 60

Thr Ser Phe Val Lys Glu Arg Arg Ala Met Lys Arg Glu Tyr Glu Glu
 65 70 75 80
 Phe Lys Val Arg Val Asn Gly Leu Val Ala Lys Ala Gln Lys Val Pro
 85 90 95
 Glu Glu Gly Trp Ile Met Gln Asp Gly Thr Pro Trp Pro Gly Asn Asn
 100 105 110
 Thr Arg Asp His Pro Gly Met Ile Gln Val Phe Leu Gly Gln Ser Gly
 115 120 125
 Gly Leu Asp Ala Glu Gly Asn Glu Leu Pro Arg Leu Val Tyr Val Ser
 130 135 140
 Arg Glu Lys Arg Pro Gly Phe Gln His His Lys Lys Ala Gly Ala Met
 145 150 155 160
 Asn Ala Leu Val Arg Val Ser Ala Val Leu Thr Asn Gly Ala Phe Leu
 165 170 175
 Leu Asn Leu Asp Cys Asp His Tyr Ile Asn Asn Ser Lys Ala Leu Arg
 180 185 190
 Glu Ala Met Cys Phe Leu Met Asp Pro Asn Leu Gly Lys Gln Val Cys
 195 200 205
 Tyr Val Gln Phe Pro Gln Arg Phe Asp Gly Ile Asp Arg Asn Asp Arg
 210 215 220
 Tyr Ala Asn Arg Asn Thr Val Phe Phe Asp Ile Asn Leu Arg Gly Leu
 225 230 235 240
 Asp Gly Ile Gln Gly Pro Val Tyr Val Gly Thr Gly Cys Val Phe Asn
 245 250 255
 Arg Thr Ala Leu Tyr Gly Tyr Glu Pro Pro Leu Lys Pro Lys His Arg
 260 265 270
 Lys Thr Gly Ile Leu Ser Ser Leu Cys Gly Gly Ser Arg Lys Lys Ser
 275 280 285
 Ser Lys Ser Ser Lys Lys Gly Ser Asp Lys Lys Lys Ser Gly Lys His
 290 295 300
 Val Asp Ser Thr Val Pro Val Phe Asn Leu Glu Asp Ile Glu Glu Gly
 305 310 315 320
 Val Glu Gly Ala Gly Phe Asp Asp Glu Lys Ser Leu Leu Met Ser Gln
 325 330 335
 Met Ser Leu Glu Lys Arg Phe Gly Gln Ser Ala Val Phe Val Ala Ser
 340 345 350
 Thr Leu Met Glu Asn Gly Gly Val Pro Gln Ser Ala Thr Pro Glu Thr
 355 360 365
 Leu Leu Lys Glu Ala Ile His Val Ile Ser Cys Gly Tyr Glu Asp Lys
 370 375 380

Thr Asp Trp Gly Ser Glu Ile Gly Trp Ile Tyr Gly Ser Val Thr Glu
385 390 395 400

Asp Ile Leu Thr Gly Phe Lys Met His Ala Arg Gly Trp Arg Ser Ile
405 410 415

Tyr Cys Met Pro Lys Arg Pro Ala Phe Lys Gly Ser Ala Pro Ile Asn
420 425 430

Leu Ser Asp Arg Leu Asn Gln Val Leu Arg Trp Ala Leu Gly Ser Val
435 440 445

Glu Ile Leu Phe Ser Arg His Cys Pro Ile Trp Tyr Gly Tyr Ser Gly
450 455 460

Arg Leu Lys Trp Leu Glu Arg Phe Ala Tyr Val Asn Thr Thr Ile Tyr
465 470 475 480

Pro Val Thr Ala Ile Pro Leu Leu Met Tyr Cys Thr Leu Pro Ala Val
485 490 495

Cys Leu Leu Thr Asn Lys Phe Ile Ile Pro Gln Ile Ser Asn Leu Ala
500 505 510

Ser Ile Trp Phe Ile Ser Leu Phe Leu Ser Ile Phe Ala Thr Gly Ile
515 520 525

Leu Lys Met Lys Trp Asn Gly Val Gly Ile Asp Gln Trp Trp Arg Asn
530 535 540

Glu Gln Phe Trp Val Ile Gly Gly Val Ser Ala His Leu Phe Ala Val
545 550 555 560

Phe Gln Gly Leu Leu Lys Val Leu Ala Gly Ile Asp Thr Asn Phe Thr
565 570 575

Val Thr Ser Lys Ala Ser Asp Glu Asp Gly Asp Phe Ala Glu Leu Tyr
580 585 590

Met Phe Lys Trp Thr Thr Leu Leu Ile Pro Pro Thr Thr Leu Leu Ile
595 600 605

Ile Asn Leu Val Gly Val Val Ala Gly Ile Ser Tyr Val Ile Asn Ser
610 615 620

Gly Tyr Gln Ser Trp Gly Pro Leu Phe Gly Lys Leu Phe Phe Ala Phe
625 630 635 640

Trp Val Ile Ile His Leu Tyr Pro Phe Leu Lys Gly Leu Met Gly Arg
645 650 655

Gln Asn Arg Thr Pro Thr Ile Val Val Val Trp Ser Ile Leu Leu Ala
660 665 670

Ser Ile Phe Ser Leu Leu Trp Val Arg Ile Asp Pro Phe Thr Thr Arg
675 680 685

Val Thr Gly Pro Asp Val Glu Gln Cys Gly Ile Asn Cys
690 695 700

<210> 33
 <211> 1065
 <212> PRT
 <213> Arabidopsis thaliana

<400> 33
 Met Glu Ser Glu Gly Glu Thr Ala Gly Lys Pro Met Lys Asn Ile Val
 1 5 10 15
 Pro Gln Thr Cys Gln Ile Cys Ser Asp Asn Val Gly Lys Thr Val Asp
 20 25 30
 Gly Asp Arg Phe Val Ala Cys Asp Ile Cys Ser Phe Pro Val Cys Arg
 35 40 45
 Pro Cys Tyr Glu Tyr Glu Arg Lys Asp Gly Asn Gln Ser Cys Pro Gln
 50 55 60
 Cys Lys Thr Arg Tyr Lys Arg Leu Lys Gly Ser Pro Ala Ile Pro Gly
 65 70 75 80
 Asp Lys Asp Glu Asp Gly Leu Ala Asp Glu Thr Val Glu Phe Asn
 85 90 95
 Tyr Pro Gln Lys Glu Lys Ile Ser Glu Arg Met Leu Gly Trp His Leu
 100 105 110
 Thr Arg Gly Lys Gly Glu Glu Met Gly Glu Pro Gln Tyr Asp Lys Glu
 115 120 125
 Val Ser His Asn His Leu Pro Arg Leu Thr Ser Arg Gln Asp Thr Ser
 130 135 140
 Gly Glu Phe Ser Ala Ala Ser Pro Glu Arg Leu Ser Val Ser Ser Thr
 145 150 155 160
 Ile Ala Gly Gly Lys Arg Leu Pro Tyr Ser Ser Asp Val Asn Gln Ser
 165 170 175
 Pro Asn Arg Arg Ile Val Asp Pro Val Gly Leu Gly Asn Val Ala Trp
 180 185 190
 Lys Glu Arg Val Asp Gly Trp Lys Met Lys Gln Glu Lys Asn Thr Gly
 195 200 205
 Pro Val Ser Thr Gln Ala Ala Ser Glu Arg Gly Gly Val Asp Ile Asp
 210 215 220
 Ala Ser Thr Asp Ile Leu Ala Asp Glu Ala Leu Asn Asp Glu Ala
 225 230 235 240
 Arg Gln Pro Leu Ser Arg Lys Val Ser Ile Pro Ser Ser Arg Ile Asn
 245 250 255
 Pro Tyr Arg Met Val Ile Met Leu Arg Leu Val Ile Leu Cys Leu Phe
 260 265 270

Leu His Tyr Arg Ile Thr Asn Pro Val Pro Asn Ala Phe Ala Leu Trp
 275 280 285
 Leu Val Ser Val Ile Cys Glu Ile Trp Phe Ala Leu Ser Trp Ile Leu
 290 295 300
 Asp Gln Phe Pro Lys Trp Phe Pro Val Asn Arg Glu Thr Tyr Leu Asp
 305 310 315 320
 Arg Leu Ala Leu Arg Tyr Asp Arg Glu Gly Glu Pro Ser Gln Leu Ala
 325 330 335
 Ala Val Asp Ile Phe Val Ser Thr Val Asp Pro Leu Lys Glu Pro Pro
 340 345 350
 Leu Val Thr Ala Asn Thr Val Leu Ser Ile Leu Ala Val Asp Tyr Pro
 355 360 365
 Val Asp Lys Val Ser Cys Tyr Val Phe Asp Asp Gly Ala Ala Met Leu
 370 375 380
 Ser Phe Glu Ser Leu Ala Glu Thr Ser Glu Phe Ala Arg Lys Trp Val
 385 390 395 400
 Pro Phe Cys Lys Lys Tyr Ser Ile Glu Pro Arg Ala Pro Glu Trp Tyr
 405 410 415
 Phe Ala Ala Lys Ile Asp Tyr Leu Lys Asp Lys Val Gln Thr Ser Phe
 420 425 430
 Val Lys Asp Arg Arg Ala Met Lys Arg Glu Tyr Glu Glu Phe Lys Ile
 435 440 445
 Arg Ile Asn Ala Leu Val Ser Lys Ala Leu Lys Cys Pro Glu Glu Gly
 450 455 460
 Trp Val Met Gln Asp Gly Thr Pro Trp Pro Gly Asn Asn Thr Gly Asp
 465 470 475 480
 His Pro Gly Met Ile Gln Val Phe Leu Gly Gln Asn Gly Gly Leu Asp
 485 490 495
 Ala Glu Gly Asn Glu Leu Pro Arg Leu Val Tyr Val Ser Arg Glu Lys
 500 505 510
 Arg Pro Gly Phe Gln His His Lys Lys Ala Gly Ala Met Asn Ala Leu
 515 520 525
 Val Arg Val Ser Ala Val Leu Thr Asn Gly Pro Phe Ile Leu Asn Leu
 530 535 540
 Asp Cys Asp His Tyr Ile Asn Asn Ser Lys Ala Leu Arg Glu Ala Met
 545 550 555 560
 Cys Phe Leu Met Asp Pro Asn Leu Gly Lys Gln Val Cys Tyr Val Gln
 565 570 575
 Phe Pro Gln Arg Phe Asp Gly Ile Asp Lys Asn Asp Arg Tyr Ala Asn
 580 585 590

Arg Asn Thr Val Phe Phe Asp Ile Asn Leu Arg Gly Leu Asp Gly Ile
 595 600 605
 Gln Gly Pro Val Tyr Val Gly Thr Gly Cys Val Phe Asn Arg Thr Ala
 610 615 620
 Leu Tyr Gly Tyr Glu Pro Pro Ile Lys Val Lys His Lys Lys Pro Ser
 625 630 635 640
 Leu Leu Ser Lys Leu Cys Gly Gly Ser Arg Lys Lys Asn Ser Lys Ala
 645 650 655
 Lys Lys Glu Ser Asp Lys Lys Lys Ser Gly Arg His Thr Asp Ser Thr
 660 665 670
 Val Pro Val Phe Asn Leu Asp Asp Ile Glu Glu Gly Val Glu Gly Ala
 675 680 685
 Gly Phe Asp Asp Glu Lys Ala Leu Leu Met Ser Gln Met Ser Leu Glu
 690 695 700
 Lys Arg Phe Gly Gln Ser Ala Val Phe Val Ala Ser Thr Leu Met Glu
 705 710 715 720
 Asn Gly Gly Val Pro Pro Ser Ala Thr Pro Glu Asn Leu Leu Lys Glu
 725 730 735
 Ala Ile His Val Ile Ser Cys Gly Tyr Glu Asp Lys Ser Asp Trp Gly
 740 745 750
 Met Glu Ile Gly Trp Ile Tyr Gly Ser Val Thr Glu Asp Ile Leu Thr
 755 760 765
 Gly Phe Lys Met His Ala Arg Gly Trp Arg Ser Ile Tyr Cys Met Pro
 770 775 780
 Lys Leu Pro Ala Phe Lys Gly Ser Ala Pro Ile Asn Leu Ser Asp Arg
 785 790 795 800
 Leu Asn Gln Val Leu Arg Trp Ala Leu Gly Ser Val Glu Ile Leu Phe
 805 810 815
 Ser Arg His Cys Pro Ile Trp Tyr Gly Tyr Asn Gly Arg Leu Lys Phe
 820 825 830
 Leu Glu Arg Phe Ala Tyr Val Asn Thr Thr Ile Tyr Pro Ile Thr Ser
 835 840 845
 Ile Pro Leu Leu Met Tyr Cys Thr Leu Leu Ala Val Cys Leu Phe Thr
 850 855 860
 Asn Gln Phe Ile Ile Pro Gln Ile Ser Asn Ile Ala Ser Ile Trp Phe
 865 870 875 880
 Leu Ser Leu Phe Leu Ser Ile Phe Ala Thr Gly Ile Leu Glu Met Arg
 885 890 895
 Trp Ser Gly Val Gly Ile Asp Glu Trp Trp Arg Asn Glu Gln Phe Trp
 900 905 910

Val Ile Gly Gly Val Ser Ala His Leu Phe Ala Val Phe Gln Gly Ile
 915 920 925
 Leu Lys Val Leu Ala Gly Ile Asp Thr Asn Phe Thr Val Thr Ser Lys
 930 935 940
 Ala Ser Asp Glu Asp Gly Asp Phe Ala Glu Leu Tyr Leu Phe Lys Trp
 945 950 955 960
 Thr Thr Leu Leu Ile Pro Pro Thr Thr Leu Leu Ile Val Asn Leu Val
 965 970 975
 Gly Val Val Ala Gly Val Ser Tyr Ala Ile Asn Ser Gly Tyr Gln Ser
 980 985 990
 Trp Gly Pro Leu Phe Gly Lys Leu Phe Phe Ala Phe Trp Val Ile Val
 995 1000 1005
 His Leu Tyr Pro Phe Leu Lys Gly Leu Met Gly Arg Gln Asn Arg Thr
 1010 1015 1020
 Pro Thr Ile Val Val Val Trp Ser Val Leu Leu Ala Ser Ile Phe Ser
 1025 1030 1035 1040
 Leu Leu Trp Val Arg Ile Asp Pro Phe Thr Ser Arg Val Thr Gly Pro
 1045 1050 1055
 Asp Ile Leu Glu Cys Gly Ile Asn Cys
 1060 1065